

THREE NEW SPECIES OF ALEYRODIDAE (HOMOPTERA) FROM MAURITIUS

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TWO FIGURES

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The material, upon which the present paper is based, is included in a collection of Aleyrodidae recently sent me for identification by Mr. R. Mamet of Mauritius. The insects of this group occurring in that island have not been thoroughly explored, and only five species are known, viz., *Aleuroplatus mameti* Takah., *Tetraleurodes subrotunda* Takah., *Neomaskellia bergi* Singt., *Aleurotrachelus filamentosus* Takah., *Aleurocanthus* sp. In this paper three more species are described.

Dialeurodes mauritiensis new species

Pupa case—Pale golden yellow, darker or reddish on the median area, but whitish on the margin, without wax. Broadly elliptic, a little longer than wide, very slightly narrowed anteriorly, broadly rounded on the anterior and posterior margins, not constricted, flattened, thin, without prominent setae. Mid-thoracic suture very thin, hardly discernible, not reaching the margin; suture between the meso- and metanotum faint; suture between the thorax and abdomen faint, short, not reaching beyond the legs; basal 6 abdominal segments faintly recognizable. Dorsum densely reticulate except on the median segmented area and on the submarginal area; median area with many transverse long irregular furrow-like markings; submarginal area with many long thin furrow-like markings running mesad from the margin, and with many indistinct very small conical papillae in a very irregular row, which papillae are directed outward, much distant from the margin and are hardly discernible in some specimens. Thoracic tracheal folds long, narrow, without sculptures, but with many dots; the pores small, entirely closed, within the margin, lacking teeth, but with a prominent process at the middle, which is nearly lanceolate

and as long as the diameter of the pores. Caudal furrow absent; ventral caudal fold long, narrow, much expanded basally, with many dots; caudal tracheal pore as in the thoracic ones. Margin thin, with 2 usual pairs of setae; marginal teeth in a row, wider than long, narrowed towards the apex, rounded apically, about 10 of them occupying a space of 0.092 mm. Vasiform orifice small, subcordate, not notched at the hind end, thickened on the margin, as long as wide (including the margin), without distinct teeth, but with a small rounded tubercle at the hind end; the anterior margin defined, not expanded at the middle. Operculum occupying the orifice. Lingula knobbed, concealed.

Pupa case—1.9 mm. long, 1.68 mm. wide, submarginal area with radiating lines—0.25 mm. wide, distance between vasiform orifice and hind end of pupa case—0.46 mm., vasiform orifice including margin—0.06 mm. long.

Habitat—Mauritius : Bassin Blanc, Les Mares.

Some pupa cases were collected by Mr. R. Mamet in 1935. This species is related to *Dialeurodes elongata* Dozier from India, but differs much in the shape of pupa case, the vasiform orifice being provided with a rounded median tubercle at the hind end, the smaller indistinct submarginal papillae, and in the colour, as well as in other structures.

Aleuroplatus subrotundus new species.

Pupa case—Black, with no secretion. Strongly sclerotized, sub-circular, nearly as long as wide, broadest at the middle, not narrowed anteriorly, but distinctly constricted across the thoracic tracheal combs and on the posterior part of abdomen, nearly straight on the hind margin. Mid-thoracic suture nearly reaching the margin; mesonotum not defined from the pronotum; suture between the meso- and meta-notum prominent; suture between the thorax and abdomen extending forwards on the lateral part, not reaching the margin; abdominal segments distinct on the median wide area; rhachis absent. Dorsum without tubercles, papillae and setae. Thoracic tracheal folds distinct, narrow; the combs with 5 or 6 teeth, which are stout, as long as wide, rounded, closely arranged, not in an incision, scarcely protruding beyond the marginal teeth, slightly larger than, or scarcely differentiated from, the marginal teeth. Caudal furrow absent; caudal comb with 4 teeth, which are not sunken and are like the thoracic ones. Margin very narrowly sclerotized; marginal teeth very short, arranged in a

row, much wider than long, rounded, about 12 of them occupying a space of 0.092 mm. Vasiform orifice rather large, distinctly longer than

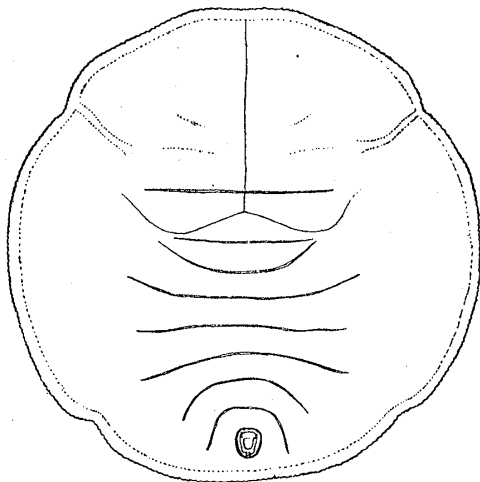


Fig. 1. Pupa case of *Aleuroplatus subrotundus* n. sp.

wide, subcordate, thickened on the margin, with a pair of prominent teeth at the hind margin, which are wide and pointed at the tip; the anterior marginal area not expanded at the middle. Operculum occupying two-thirds of the orifice. Space between the orifice and the hind end of pupa case nearly as long as the orifice. Venter with a distinctly-defined narrow marginal rim.

Pupa case—0.97 mm. long, vasi-form orifice excluding anterior margin—0.046 mm. long.

Habitat—Mauritius: Mt. Le Pouce (altitude 2650 feet).

A few specimens were taken by Mr. R. Mamet on an undetermined indigenous tree, December 5, 1937. This species is characterized by the subcircular pupa case distinctly constricted, and by the presence of a pair of prominent teeth in the vasiform orifice.

Tetraleurodes mameti new species.

Pupa case—Black, slightly with wax along the whole margin. Strongly sclerotized, subcircular, slightly longer than wide, broadest on the basal part of abdomen, a little narrowed anteriorly, not constricted, flattened, depressed, narrowly elevated on the margin of dorsum, not indented at the hind end, with a shallow interrupted median ridge. Submarginal area distinctly defined, wide, more strongly sclerotized except on the mesal area, with some irregular narrow paler parts* as shown in the figure, and with many small circular pores in 2 rows. Mid-thoracic suture not reaching the margin; pro- and mesonotum fused together; suture between the meso- and metanotum prominent; suture between the thorax and abdomen abruptly extending forwards on the lateral part, nearly reaching the hind part of pronotum; abdominal segments distinct, but the basal segment sometimes not well defined from the 2nd; rhachis absent. Dorsal disk lacking papillae

* These parts are discernible in specimens treated with Schulz's mixture.

and tubercles, with many minute indistinct pores in a row along the margin, and with numerous very minute granules, most of which are in rows forming reticulations; a pair of setae present on the cephalothorax and also in front of the vasiform orifice. Eye spots absent. Thoracic tracheal folds rather wide; the combs with 5 or 6 distinct knobbed teeth, which are robust, rounded on the knobbed distal half, longer than wide, very densely arranged, a little larger than the marginal teeth, and as in the marginal teeth of *Aleurocanthus mangiferae* Quaintance et Baker in shape, but not so expanded towards the base. Caudal furrow absent. Caudal comb as in the thoracic ones. Margin with a pair of setae on the posterior part; marginal teeth stout, longer than wide, nearly parallel on the sides, rounded on the apex, very densely arranged in a row, about 11 or 12 of them occupying a space of 0.092 mm. Vasiform orifice small, as wide as, or somewhat wider than, long, narrowed posteriorly, rounded at the hind end, not much thickened on the margin, without teeth; the anterior marginal are not expanded. Operculum occupying the orifice.

Pupa case—0.97 mm. long, sub-marginal area—0.09 mm. wide, vasiform orifice including margin—0.042 mm. wide, distance between vasiform orifice and hind end of dorsal disk—0.033 mm.

Habitat—Mauritius: Mt. Le Pouce (altitude 2650 feet).

Some specimens were taken by Mr. R. Mamet on an undetermined indigenous tree, December 5, 1937.

This species is characterized by the knobbed teeth of tracheal combs and by the transverse suture abruptly extending forwards.

The cotype specimens are preserved in the collections of the collector and the author.

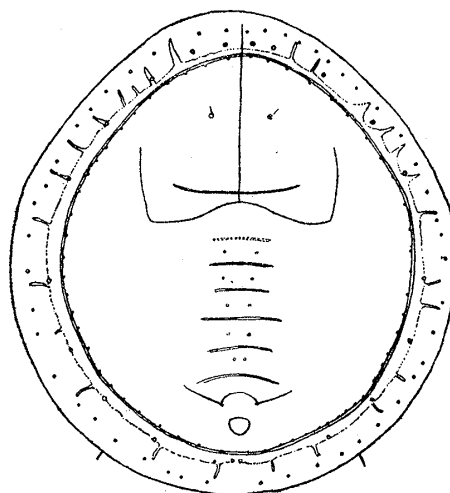


Fig. 2. Pupa case of *Tetraleurodes mameti* n. sp.